

ABSTRACT OF THE DISCLOSURE

A hydrocarbon conversion catalyst contains at least one silica-alumina having the following characteristics: A content by weight of silica SiO₂ of between 10 and 60% by weight; an Na content less than 300 ppm by weight; a total pore volume of between 0.5 and 1.2 ml/g measured by mercury porosimetry; a porosity of said silica-alumina wherein: the volume of mesopores whose diameter is between 40 Å and 150 Å, and whose mean diameter varies between 80 and 120 Å represents between 30 and 80% of the total pore volume, and (ii) the volume of macropores, whose diameter is greater than 500 Å and preferably between 1000 Å and 10,000 Å represents between 20 and 80% of the total pore volume; a specific surface area greater than 200 m²/g, and at least one hydro-dehydrogenating element selected metals of group VIB and group VIII, and optionally phosphorus, boron, silicon, or elements of group VIIA, VIIIB or VB.